

Preparation of 3,6-dibromo- and 3,4,6-tribromopyrocatechol. J. Frejka and H. Schanek. *Collection Czech Chem. Commun.* 11, 1057 (1946) (in French); *Pub. chim. et. nat. Masaryk No. 269, 37 (1949)*; *C. A.* 30, 4474. It is shown that the dibromopyrocatechol, m. 122° (diacetate, m. 109°), which was obtained by Shoff (*C. A.* 30, 2184) by brominating acetonepyrocatechol and sapon. the resulting di-Br deriv. is not 3,5-dibromopyrocatechol (m. 92-3°; diacetate, m. 110°) as assumed by him but 3,6-dibromopyrocatechol (I), the only isomeric dibromopyrocatechol missing. The further bromination of I in CHCl₃ yielded a tribromopyrocatechol (II), m. 135-6° (diacetate, m. 115°), different from 3,4,5-tribromopyrocatechol (m. 143-4°). Therefore, II must be 3,4,6-tribromopyrocatechol. It is assumed that the tribromopyrocatechol, m. 138°, contg. I and II, of crystn., described in the German patents 267,344 and 215,337 (*C. A.* 3, 2635; 4, 644) is a mixt. of 3,4,5- and 3,4,6-tri-Br derivs. Dora Stern

CA 11D

The influence of hydrogen peroxide on the germination growth, and evolution of different sorts and varieties of plants. Bohuslav Seifránek (Státní vyz. ústav pro výrobu rostl., Brno, Czech.). Sborník Českoslov. Akad. Zrůdků 23, 320-7(1931).--In their earliest stages of growth, the plants were given the max. quantity of H_2O and O in "status nascente" from H_2O_2 . The seeds were cultivated in solns. of 0.003% to 0.5% H_2O_2 in natural and artificial light and in the dark. Seeds of winter wheat "Selecta Pyselka," soaked for 2 days in 0.012% soln. of H_2O_2 and sown in spring produced 2 plants which matured seeds. Under the same conditions, the winter rye Lochovo Petkuské produced 9 of these plants. The different concns. of H_2O_2 speed up the after ripening and increase the germination of seeds which are not very okl. In seeds 10 to 20 years okl there is still greater lowering of germinative capacity. Pregermination of Dobrovicha wheat in 0.012% H_2O_2 , sown in both spring and autumn, hastened pollination by 10 days. The different concs. of H_2O_2 cause varietal and sort changes. The growth and formation of rootlets has been inhibited more in the dicotyledonous than in the monocotyledonous plants.

Ian Micka

SEFRANEK, B

"Research on organic fertilizers in the German Democratic Republic" (p. 371).
ZA SOCIALISTICKE ZEMEDELSTVI (Ministerstvo zemedelstvi a Ceskoslovenska akademie
zemedelskychved) Praha, Vol 4, No 4, Apr 1954

SO: East European Accessions List, Vol 3, No 8, Aug 1954.

SEFRANEK, B.; DANEK, F.; KRAL, F.

"New Principles in the Autumn Nutrition of Plants", P. 683, (ZA SOCIALISTICKE ZEMEDLSTVI, Vol. 4, No. 7/8, July/Aug. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

J-4

CZECHOSLOVAKIA/Soil Science. Organic Fertilizers.

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24769,

Author : Sefranek, Boh.; Ambrozova, M.; Talafantova, A.

Inst :

Title : Study of the Effect of the Application of Peat and
Brown-Coal Wastes as Organic-Mineral Fertilizers.

Orig Pub: Sbor. Ceskosl. akad. zemed. ved. Rostl. vyrcba, 1955,
28, No 2, 143-152.

Abstract: On loamy soil, containing 1.96% of humus, 0.8 mg.
 P_2O_5 and 12 mg. K_2O ; pH salt 6.1 in the experiment
with barley, the application of the wastes of
coal (so-called capuchin) and peat in doses from
40 to 160 t./ha did not give stable harvest increases.
Combined application with mineral fertilizers notice-

Card : 1/2

CZECHOSLOVAKIA/Soil Science. Organic Fertilizers.

J-4

Abs Jour: Ref Zhur-Diol., No 6, 1958, 24769

ably increased the harvests; however, the role of the organic fertilizers in this was not differentiated.

Card : 2/2

SEFRANKA, M.

Textit SK, new kind of multilayer material. p.22.
ELEKTROTECHNIK, Prague, Vol. 11, no. 1, Jan. 1956.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6 June 1956, Uncl.

SECRET
15 15 3
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A053. SKLOTEKHT U. AND EPOXY GLASS-CLOTH LAMINATE.

SEFRIN, M.

Socialism is the best preventive. Cesk. zdrav. 12 no.10:
523-525. O '64.

1. Namestek ministerskeho predsedy a ministr zdravotnictv
Nemecka Demokraticka Republika.

SEFRNA, B.; MIKES, R.; KROJPA, J.

The problem of emergency services in brain injuries. Rozhl.
chir. 41 no.4:240-245 Ap '62.

1. Zachranna sluzba NV hl. m. Prahy, reditel MUDr. R.Mikes
Vyzkumny ustav traumatologicky v Brne, reditel prof. MUDr.
Vlad. Novak.

(BRAIN wds & inj) (FIRST AID)

SEFRNA, B.; MIKES, R.

Experiences of a first-aid station with resuscitation. Rozhl. chir.
41 no.11:760-769 N '62.

1. Zachranna sluzba NV hl. m. Prahy, reditel MUDr. R. Mikes.
(FIRST AID) (RESPIRATION ARTIFICIAL)

SEFRNA, Karel, MUDr.

Care for children in the unified hospital in Svitavy. Cech.
sdravot, 4 no.4:186-191 Apr 56.

1. Primar detskeho oddeleni OUMZ.

(HOSPITALS,

pediatric serv. in unified hosp. in Csech. (Cz))

SEFURA, Karel (Detske odd. OUNZ, Svitavy)

Practical experience with the unified hospital in Svitavy. Cesk. pediat.
14 no.1:67-72 5 Jan 59.

1. Detske oddeleni OUNZ -- Svitavy.
(HOSPITALS, statist.
in Czech. unified hosp. (Cz))

KNOBLOCH, Ferd., MUDr; SEFRNOVA, Milena

Contribution to the technic of family psychotherapy. Neur. psychiat.
cesk. 17 no.4:217-224 Aug 54.

1. Z psychiat. kliniky v Praze (odd. polikliniky). Prednosta prof.
Z.Myslivecek.

(PSYCHOTHERAPY

family psychother., technic)

(FAMILY

psychother. of neurotic married couple)

SEFRNOVA, Milena

Tasks of a psychiatric social worker in ambulatory service and
in rehabilitation on neurotics. Neur.psychiat.cesk. 18 no.3:168-
172 May 55.

1. Z psychiatrického odd. fakultní polikliniky v Praze Přednosta:
prof. MUDr Zdeněk Mysliveček.

(PSYCHIATRY

in Czech., psychiatric ambulatory serv., tasks)

(NEROSES, therapy

rehabil., task of psychiatric soc. worker)

SEFTERESCU, M.

TECHNOLOGY

Periodical: REVISTA INDUSTRIEI ALIMENTARE. PRODUSE ANIMALE. No. 1,
1958

SEFTERESCU, M., Organizing enlarged draw-net fishing brigades. p. 31.

Monthly List of East European Accession (EEAI), LC., Vol. 8, No. 3,
March 1958, Unclass.

SEGAL, A.

Electronic device for testing memory ferrites in impulses. p. 40.

AUTOMATICA SI ELECTRONICA. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din Romania) Bucuresti, Rumania, Vol. 8, no. 1, Jan./ Feb. 1959

Monthly list of East European Accessions (EEAI) LC, Vol. 8, no. 8, Aug. 1959

Uncl.

SEGAL, A.

Amplitude analyzer with electrostatic memory. Studii cer.fiz. 10
no.4:791-805 '59. (EEAI 9:5)
(Magnetic memory (Calculating machines)) (Pulse counters)
(Electrostatics)

SEGAL, A.

The CIFA-101 electronic computer machine. Probleme automatiz
161-167 5 N '62.

SEGAL, A.; CIOBANU, E.

Memorizing device on the magnetic cylinder of the
CIFA-101 computer machine. Probleme automatiz 183-190
5 II '62.

MORA, Henrieta, ing.; SEGAL, Ana, ing.

Sulfonic groups in tanning extracts and their quantitative determination. Industria usoara 10 no.9:375-377 S '63.

IONESCU, Ecaterina, ing.; SEXIAL, Ann, ing.

Application of chromatography in the tannery. Industria
usoara 11 no.1:14-17 Ja '64.

SEGAL', A.I.

SEGAL', A.I. Vosstanovlenie Donbassa (o bezostoinosti donetskogo uгля). S pred.
A. Troianovs ogo. Moskva, Izd-vo NKPKI SSSR, 1924. 93p.

StY

DLC: Unclass.

So: LC, Soviet Geography, Part II, 1951/Unclassified

SEGAL', A. I.

SEGAL', A. I. Besedy po gronom ekonomike; ugol'-neft'-zhelezo-marganets. S pred.
A. M. Terpigoreva. Moskva, Gosizdat, 1927. 279 p.

DLC: Unclass.

SO: LC, Soviet Geography, Part I, 1951, Uncl.

SEYAL', A. I.

SEYAL', A. I. Kamennyi ugol'. Moskva, Moskvoskii rabochii, 1930. 68 p.
(Prirodnye bogatstva SSSR na sluzhbu industrializatsii).

DIC: 11808.R7037

S : LC, Soviet Geography, Part I, 1951, Uncl.

SEGAL', A. I.

SEGAL', A. I. Toplivo i ego znachenie v narodnom khoziaistve SSSR. Moskva, Gostekhizdat, 1931. 90 p.

ILC: TP317.R9S4

SO:: LC, Soviet Geography, Part I, 1951, Uncl.

SEBAL', A.I., doktor ^{in nauk} tekhnicheskikh nauk, professor.

Graphic design of frames. Issl. po teor. sooruzh. no.4:209-215 '49.
(Structural frames--Graphic methods) (MLBA 10:8)

124-57-1-1151

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 159 (USSR)

AUTHOR: Segal', A. I.

TITLE: On the Calculation of Guy-rope Systems (O raschete vantovykh sistem)

PERIODICAL: Tr. Mosk. tekhn. in-ta ryb. prom-sti i kh-v, 1953, Nr 5, pp 103-117

ABSTRACT: The problem of a rigid mast braced with a great number of ropes is solved by means of the deformation method, with due consideration of the catenary stresses evoked by the weight of the ropes; this leads to a nonlinear relationship between the tension of the cables and the displacements. The transcendental equations obtained are first solved by an approximate method under the assumption that the rope material is not susceptible to elongation, and, subsequently, with due account to elastic deformations. Two numerical examples are given.

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|---|---|
| 1. Beams--Stresses--Mathematical analysis | 2. Masts--Stresses--Mathematical analysis |
| 3. Masts--Supports | Yu. P. Grigor'yev |
| --Stress analysis | |

Card 1/1

SEGAL', A.I., professor, doktor tekhnicheskikh nauk (Moscow)

Calculation of floors and spatial structures with several cross
beams. Issledovaniia po teorii sooruzhenii. Sbornik statei no.6:
145-166 '54. (MIRA 7:11)

(Structures, Theory of) (Strains and stresses) (Elastic
plates and shells)

DAVYDOV, V.V., professor, doktor tekhnicheskikh nauk; AFANAS'YEV, A.M.
redaktor; SEGAL', A.I., retsenzent; MASYAGIN, A.V., retsenzent;
VITASHKINA, S.A., redaktor; KRASNAYA, A.K., tekhnicheskiy redaktor.

[Resistance of ship's hull to torsion] Prochnost' korpusa sudna
pri skruchivani. Moskva, Izd-vo "Rechnoi transport," 1955. 242 p.
(Torsion) (MLRA 9:1)

SEGAL', Aleksandr Iosifovich

N/5
672.3
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Prochnost' i ustoychivost' sudovykh perekrytiy
(Strength and stability of bulkheads) Moskva, Rechnoy
Transport, 1955
371 p. diags. tables

STOROZHEV, Nikolay Fedorovich; BANIGE, M.Yu.,redaktor; SERGAL', A.I.,
retsensent; VITASHKINA, S.A.,redaktor izdatel'stva; KRASNAYA,
A.K.,tekhnicheskiiy redaktor

[Determining strains in connections between ships during
towing] Opredelenie usilii v svyaziakh mezhdu sudami pri
tolkanii. Moskva, Izd-vo "Rechnoi transport," 1956. 177 p.

(MLRA 10:4)

(Towing)

SEGAL, ALEKSANDR IOSIFOVICH

PHASE I BOOK EXPLOITATION

470

Segal', Aleksandr Iosifovich

Prikladnaya teoriya uprugosti (Applied Theory of Elasticity) Leningrad, Sudpromgiz, 1957. 246 p. 4,500 copies printed.

Resp. Ed.: Fedosov, M.F.; Ed.: Osvenskaya, A.A.; Tech. Ed.: Kontorovich, A.I.

PURPOSE: The book is approved by the Ministry of Higher Education as a textbook for naval engineers in machine-building and polytechnical vuzes and may also be used by students, engineers, and research fellows in other special fields.

COVERAGE: The author attempts to bridge the gap between the academic theory of elasticity and practical engineering design, in particular the design of ship hulls. Thus the book may be considered to combine theoretical and applied elasticity with particular reference to hull structures. Included are the following subjects: Two-dimensional problems in the theory of elasticity; torsion of

Card 1/9

Applied Theory of Elasticity

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prismatic bars; theory of thin-walled cylinders and structures; bending of tubular beams; theory of two-dimensional circular systems, such as a concentrated force acting on an infinite plate, bending of circular plates, plates with holes; local stress concentrations; application of the above in problems of hull design, such as bending of a hull, determination of stress in hull plating, etc. The course represented in this book has been coordinated with the Departments of Naval Engineering of the Moscow Technical Institute of the Fishing Industry and Economy, the Gor'kiy Polytechnical Institute, the Gor'kiy Institute of Water-Transportation Engineers, and the Nikolayev Shipbuilding Institute. The book contains 83 figures and 4 tables.

TABLE OF
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Preface

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PART I

Fundamental Equations of the Theory of Elasticity

Chapter 1. Theory of Stresses

1. Basic hypotheses of the theory of elasticity

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Card 2/9

SOV/124 58-4-4522

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 4, p 122 (USSR)

AUTHOR: Segal, A. I.

TITLE: Some Methods of Dynamic Calculation (Nekotoryye priyemy dinamicheskogo rascheta)

PERIODICAL: V sb.: Issledovaniya po teorii sooruzheniy, Nr 7, Moscow, Gosstroyizdat, 1957, pp 87-110

ABSTRACT: The basis of the calculation consists of the well known concept of the formal analogy of the initial equations in the dynamic problem with regard to natural and forced vibrations of heavy beams with the initial equations of the static problem of the calculation of beams resting upon an elastic foundation with a specially selected negative footing coefficient. One particular dynamic calculation presented is that of a roof covering acting as a system of beams on an elastic foundation.

1. Beams--Vibration 2. Mathematics

N. I. Bezukhov

Card 1/1

SOV/124-58-3-3149

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 3, p 87 (USSR)

AUTHOR: Segal', A. I.

TITLE: Cyclic Systems Under "Rotating Loads" (Tsiklicheskiye sistemy pri "vrashchayushchikhsya nagruzkakh")

PERIODICAL: V sb.: Issled. po teorii sooruzheniy. Nr 7; Moscow, Gosstroyizdat, 1957, pp 467-493

ABSTRACT: The author discusses a circular plate, an infinite plate with a circular hole, and a thin ring under the action of an arbitrary plane balanced system of forces which are statically applied to the contour of the plate or to the axis of the ring. The given load is represented by an infinite series, each term of which corresponds to a uniform load of a special type which the author designates as "rotating". Its intensity vector is constant in magnitude (p_n), forming at each point an angle $n\vartheta$ to the direction of the original radius; here ϑ designates the angular coordinate, n is an integer exponent which assumes values from $-\infty$ to $+\infty$, with the exception of the zero value (with $n = 0$, the load would be unbalanced). The "rotating" load could, with any n , be divided into two cyclic loads -

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SOV/124-58-3-3149

Cyclic Systems Under "Rotating Loads"

a radial $q_k \cos k \vartheta$ and a tangential $t_k \sin k \vartheta$, with parameters q_k , t_k , and p_n equal to each other, and with a difference of one unit between the indices k and n . At the same time the cyclic load, with any k , may be divided into two "rotating" loads of which one has a positive and the other a negative exponent. In an analogous manner, the author introduces concepts regarding "rotating" stresses which operate in annular and radial sections, regarding the "rotating" inner stress within a ring, and regarding "rotating" deflection. The relationships between p_n and the parameters of the corresponding "rotating" stresses, strains, and deflections are established. The author uses the results of his work on cyclic problems in his derivation. It is noted that the ultimate formulae for "rotating" loads came out more compact than those for cyclic loads. Several examples are examined; the author has been able to summate the series developed in these examples. He examines the prospects of the development of a method for the calculation of an annular plate, as well as shells in the shape of a body of revolution and three-dimensional systems of bars.

Ya. B. L'vin

Card 2/2

SEBAL', Aleksandr Iosifovich, prof., doktor tekhn.nauk; VOL'MIR, A.S.,
retsensent; VITASHKINA, S.A., red.izd-va; YERMAKOVA, T.T.,
tekhn.red.

[Strength and resistance of ship span covers] Prochnost' i
ustoichivost' sudovykh perekrytii. Moskva, Izd-vo "Rechnoi
transport," 1959. 515 p. (MIRA 13:3)
(Hulls (Naval architecture))

SEGAL', A.I., doktor tekhn. nauk (Moskva)

Simplification of the Bubnov-Galerkin method. Issl. po teor.
sooruzh. no.8:235-239 '59. (MIRA 12:12)
(Strains and stresses) (Stability)

SEGAL' Aleksandr Iosifovich; FILIN, A.P., prof., doktor tekhn. nauk, retsenzent; AFANAS'YEV, A.M., kand. tekhn. nauk, dots., nauchnyy red.; SOSIPATROV, O.A., red.; FRUMKIN, P.S., tekhn. red.

[Applied theory of elasticity] Prikladnaia teoriia uprugosti. Izd.2., dop. i ispr. Leningrad, Gos.soiuznoe izd-vo sudostroit. promyshl., 1961. 267 p. (MIRA 15:1)

(Elasticity)

SEGAL', A.I., doktor tekhn.nauk, prof. (Moskva)

Calculating circular disks. Issl.po teor.sooruzh. no.11:261-
273 '62. (MIRA 15:8)
(Elastic plates and shells)

SEGAL', Apollon Moiseyevich; BRON, O.B., doktor tekhn. nauk,
prof.; ORANSKIY, M.I., kand. tekhn. nauk, dots.,
retsenzent; SHNAREVICH, D.I., kand. tekhn. nauk, dots.,
retsenzent; VOL'PE, L., red.

[Electromagnetic field, Theoretical principles of electrical
engineering] Elektromagnitnoe pole, TOE. Leningrad, Severo-
Zapadnyi zaachnyi politekhn. in-t, 1964. 71 p.
(MIRA 18:11)

SEGAL', A. N.

USSR/Medicine - Hypoxemia

Jan 54

"Regulation of the Respiration Under Conditions of Oxygen Shortage," N. A. Arkhangel'skaya, A. N. Segal', Lab of the Physiol of Gas Metabolism, Inst of Expl Med, Acad Med Sci USSR, Leningrad

Byul Eks Biol i Med, Vol 37, No 1, pp 23-26

Expts on white rats showed that combination of the unconditional irritation produced by a lack of O with the action of an indifferent conditioned irritant resulted in persistent response by accelerated respiration to the conditioned irritant alone.

275T20

1955. . . .: "The effect of light on gas exchange and the motor activity of birds" (Experimental-ecological investigation). Leningrad, 1955. Acad Sci USSR. Inst of Physiology named I. P. Pavlov. (Dissertation for the Degree of Candidate of BIOLOGICAL Sciences)

SO: Knizhnaya Letopis' No. 51, 10 December 1955

320 A1, A-N

✓ Motor activity and gas metabolism in bluebirds with alteration of light regime. A. N. Segal (P. P. Lesgal, State Inst. National History, Leningrad). Doklady Akad. Nauk S.S.S.R. 109, 1073-8(1960). The adult birds have

a relatively stable behavior in which the activity in daylight periods is coupled with high gas metabolism, while night rest period is accompanied by low gas metabolism. Inversion of normal light regime shifts the responses by 12 hrs. Continuous illumination slowly changes the metabolic pattern to an all-day activity of metabolism; but the day-time portion tends to retain the higher activity; after 6-8 weeks the difference vanishes. Total darkness reduces mobility and metabolism, the latter retaining a weak periodicity for a least 6 weeks. G. M. Kosolapoff

SEGAL', A.N.

Diurnal variations of gas exchange in the tawny owl [with summary
in English]. Zool. zhur. 37 no.7:1076-1080 J1 '58. (MIRA 11:8)

1. Laboratoriya funktsional'noy morfologii Zoologicheskogo instituta
AN SSSR, Leningrad.
(Owls) (Respiration)

SEGAL', A.N.

Effect of the type of food on gas exchange in sparrow hawks [with
summary in English]. Zool. zhur. 37 no.8:1258-1259 Ag '58.
(MIRA 11:9)

1. Laboratoriya funktsional'noy morfologii Zoologicheskogo instituta
AN SSSR, Leningrad.

(Hawks) (Birds--Food) (Conditioned response)

SEGAL', A.N.; STEPANOVA, L.N., inzh.-khimik

Procion dyes. Tekst. prom. 19 no.11:56-60 N '59.

(MIRA 13:2)

1. Glavnyy kolorist Pervoy sitsenabivnoy fabрики (for Segal').
(Dyes and dyeing) (Textile printing)

SEBAL A. N.
USSR / Farm Animals. Reindeer.

Q-3

Abs Jour: Ref Zhur-Biol., No 23, 1958, 105727.

Author : Segal', A. N.

Inst : Scientific Research Institute of Agriculture
of the Extreme North.

Title : Study of Reindeer Breeding Work in Karelia.

Orig Pub: Byul. nauchno-tokhn. inform. N.-i. in-t s. kh.
Krayn. Sovera, 1957, No 2, 51.

Abstract: No Abstract.

MAKAROVA, A.R.; SEGAL', A.N.

Physiological characteristics of grazing of reindeer in winter.
Opyt izuch.reg.fiziol.funk. 4:29-35 '58. (MIRA 12:4)

1. Laboratoriya ekologicheskoy fiziologii (zavednyushchiy - prof.
A.D. Slonim) Instituta fiziologii imeni I.P. Pavlova AN SSSR i
Institut biologii Karel'skogo filiala AN SSSR (direktor - prof.
Yu.I. Polyanskiy).

(REINDEER)

(GRAZING)

SEGAL', A.N.; ORLOVA, S.A.

Appearance of beavers in Karelia. Zool. zhur. 40 no.10:1580-
1583 0 '61. (MIRA 14:9)

1. Institute of Biology, Karelian Branch of the U.S.S.R. Academy
of Sciences, Petrozavodsk.
(Karelia--Beavers)

SEGAL', A.N.

One day's periodicity of gaseous exchange in birds. Ornitologia
no.5:395-403 '62. (MIRA 16:2)

(Birds--Physiology)

SOLOV'YEV, Nikolay Vasil'yevich; YERMILOV, Petr Ivanovich; STREL'CHUK,
Nikolay Antonovich; Prinsipal uchastiye IVANOV, L.A. SEGAL,
A.Ya., red.; SHPAK, Ye.G., tekhn.red.

[Principles of safety and fire-prevention techniques in the
chemical industry] Osnovy tekhniki bezopasnosti i protivopozharnoi tekhniki v khimicheskoi promyshlennosti. Moskva,
Gos.nauchno-tekhn.izd-vo khim.lit-ry, 1960. 393 p.

(MIRA 13:11)

(Chemical industries--Safety measures)

SEGAL, A.Ya.; KAGAN, S.S., red.; SHPAK, Ye.G., tekhn. red.

[Handling of nitro and amino compounds] Pamiatka po obra-
shcheniiu s nitro i aminoproduktami. Moskva, Goskhimizdat,
1961. 19 p. (MIRA 15:4)

(Nitro compounds) (Amino compounds)
(~~Chemicals~~—Safety measures)

VASIL'YEV, Konstantin Georgiyevich; SEBAL, Aleksandr Yevseyevich
[deceased]; METELKIN, A.I., prof., red.; ZUYEVA, N.K.,
tekhn.red.

[History of epidemics in Russia] Istorii epidemii v Rossii;
materialy i ocherki. Pod red. A.I.Metelkina. Moskva, Gos.
izd-vo med.lit-ry, 1960. 396 p.

(MIRA 13:11)

(EPIDEMICS)

FRANCHE, M., Conf.; BRAUNER, E., dr.; ANDRONOVICI, Gh., dr.; MIHUL, V., dr.;
BLINDU, P., dr.; FELER, H., dr.; VINTU, G., dr.; BEJENARU, G., dr.;
RADULESCU, Alex., dr.; SABARESE, L., dr.; HURMUZACHE, C., prof.;
TUDORANU, O., dr.; SEGAL, B., dr.; MARCULESCU, G., dr.; IUNGU, I.,
dr.; IUNGU, E., dr.; ZAHARESCU, T., dr.; BALMUS, P., conf.; BEJAN, V., dr.

Scarlatinal rheumatism. Med. int., Bucur. 9 no.1:67-70 Jan 57.

(RHEUMATIC FEVER, etiol. & pathogen.
scarlet fever, incidence & prev.)
(SCARLET FEVER, complications
rheum. fever. incidence & prev.)

SEGAL, Bernard, dr.; KALMAN, Peter, dr.

Harmless heart murmur. Orv. hetil. 105 no.10:433-437;10 Mr'64.

1. Hahnemann Orvosi Egyetem es Korhaz, Philadelphia, U.S.A.,
es Budapesti Orvostudomanyi Egyetem, IV. Belklinika.

СЕМАН, Б. А.

24376

СЕМАН, Б. А. Поликлиническая и клиническая диагностика до и после
облучения (стационаров с поликлиниками). Врѣчеб. дело, 1949, No. 8,
STB. 727-28.

SO: Lektoris, No. 32, 1949.

AUTHORS: Vol. 28, No. 4, 1958, p. 689

TITLE: On the Theory of Electron-Hole Transitions in Semiconductors
(K teorii elektronno-dyrochnykh perekhodov v poluprovodnikakh)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, No. 4, pp. 689-699 (USSR)

ABSTRACT: Reference is made here to the formula $\frac{d^2u}{dx^2} - \text{sh } u = -f(x)$ (1.1) by W. Shockley (Ref. 1). This approximate equation is here investigated under the following assumption: Instead of the boundary case studied by Shockley, where the space charge is only produced at the expense of ionized admixtures, it is assumed here that $\text{sh } u = u$, i.e., that the equation (1.1) is investigated in the form of

$$(1.2) \quad \frac{d^2u}{dx^2} - u = -f(x)$$

with maintenance of the boundary condition (1.3), that is to say, that u in the case of $x \rightarrow \infty$ is limited. The solution of (1.2) with the condition (1.3) in the form of (4.3) is derived. Now it is determined under which conditions the solution (4.3) can approximately replace the exact solution (1.1) under the

Card 1/1

On the Theory of Electro-Hole Transitions in Semiconductors 57, 25 (1973)

condition (1.3). It is shown that this is the case in the entire domain of $-\infty < x < \infty$ when A (a nondimensional positive constant) is sufficiently small. On that occasion (a dimensionless positive constant) can be of any arbitrary value. In the case of a small excess concentration of the admixtures the potential plateau remains small also in the case of any x -value. There fore $\frac{q\phi}{u} \ll 1$, and equation (1.4) is everywhere a good approximation for equation (1.1). In the modern semiconductor devices $A \gg 1$. Therefore other conditions for the usefulness of the linear approximation which hold in the limited intervals also when $A \gg 1$ are examined for the domain $-\infty < x < \infty$. (6.7) and $-\infty < x < \infty$, $n \gg 1$, (7.1). The equations (6.7) for the first and (7.7) for the second case are obtained. From these follows that they - (6.7) or (7.7) according as $n \ll 1$ or $\gg 1$ serve as criterion for the usefulness of the linear approximation (4.3) instead of the exact solution (1.1) with the limiting conditions (1.3) in the domain of $-\infty < x < \infty$, $n > 0$. There is a reference 0 of which is given.

Card 2/3

On the Theory of Electron-Hole Transitions in Semiconductors 57-20-4-1/39

ASSOCIATION: Fizicheskiy institut im. P.N. Lebedeva AN SSSR
(Institute for Physics imeni P.N. Lebedev, AS USSR)
Moskovskiy stankoinstrumental'nyy institut
(Moscow Institute for Machine-Tools and Tools)

SUBMITTED: September 23, 1957

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Priblizheniye kompleksnykh chisel summy stepeney tselykh chisel s danym kompleksnym pokazatelem. Matem. sb., (47), (1939), 147-184.

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Moscow-Leningrad, 1948

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Dams," Dbk. AN, 35, No. 7, 1942.

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Segal, B. I. Trigonometric sums and some of their applications in the theory of numbers. Uspehi Matem. Nauk (N.S.) 1, no. 3-4(13-14), 147-193 (1946). (Russian)

This is a connected account of the estimation of trigonometric sums with applications to the distribution of primitive roots, indices and residues of powers, and to Waring's problem. The author's aim is to provide an introduction to the analytical theory of numbers for a wide circle of readers, rather than to carry the specialist to the frontiers of knowledge. He accordingly regards Vinogradov's methods as lying beyond his scope. He follows Hardy and Littlewood in basing his treatment of Waring's problem on Weyl's estimations, but he also includes an account of the complement supplied by Hua in 1938, so that his ultimate objective is the inequality $G(k) \leq 2^k + 1$, with the corresponding asymptotic formula. The exposition is full and clear, and the reader with a moderate knowledge of analysis and arithmetic is led by easy stages from the most elementary applications to the intricacies of Waring's problem.
A. E. Ingham (Cambridge, England)

Source: Mathematical Reviews,

vol. 10, No. 1

Segal, B. I.

Segal, B. I. Some three-dimensional problems of the potential theory and their applications. Bull. Acad. Sci. URSS. Sér. Math. [Izvestia Akad. Nauk SSSR] 10, 323-358 (1946). (Russian. English summary)

The three-dimensional problems of potential theory considered are connected mainly with the flow of liquids through porous media. A detailed study of two important systems of wells only partly penetrating a sand is performed. The first is an infinite array of vertical wells situated in the middle of an infinite strip. It is assumed that at the vertical sides of the strip the potential is equal to zero, the upper and lower sides of the strip are impermeable and that at the well surfaces the potential has a given value. The second is an infinite array of vertical wells situated parallel to and at a given distance from one of the vertical sides of an infinite strip. This side as well as the upper and lower ones are supposed to be impermeable. Furthermore, it is supposed that at the other vertical side of the strip the potential is equal to zero and that at the well surfaces the potential has a given value.

From the author's summary.

LFH

Scal

Source: Mathematical Reviews.

Vol. 2, No. 4

SEGAL, B.I.

Problem in thermal conductivity. Trudy Mat.inst. 20:65-76 '47.
(MLRA 9:3)

(Heat--Conduction)

KOVDA, V.A.; KOMAROVICH, M.A.; LIKHTENSHEYN, Ye.S.; ~~SEGAL, B.I.~~; VAVILOV, S.I., akademik, redaktor; BRUYEVICH, N.G., akademik redaktor; BARDIN, I.P., akademik, redaktor; VOLGIN, V.P., akademik, redaktor; DUBORIN, A.M., akademik, redaktor; MINTS, I.I., akademik, redaktor; CREWLI, L.A., akademik, redaktor; PODGORNENSKAYA, TS.M., redaktor izdatel'stva; SHKOL'NIKOVA, S.A., tekhnicheskij redaktor

[220th anniversary of the Academy of Sciences of the U.S.S.R.: in two volumes] 220 let Akademii nauk SSSR; v dvukh tomakh [Red. kollegiia S.I.Vavilov i dr. Sost. V.A.Kovda i dr.] Moskva. Vol. 1. 1948. 430 p. (MLRA 9:10)

1. ^Aakademiya nauk SSSR. Yubileynaya sessiya, Moscow, 1945. (Academy of Sciences of the U.S.S.R.)

SEGAL, B. I.

*Segal, B. I., and Semendyaev, K. A. Pyatiznačnye matematicheskie tablitsy. [Five-Place Mathematical Tables]. Izdat. Akad. Nauk SSSR, Moscow-Leningrad, 1950. 464 pp. (1 plate)

This book contains the following tables: $\sin x$, $\cos x$, $\tan x$, e^x , e^x , $\sinh x$, $\cosh x$, $\tanh x$, $1/x$ for $x=0(.001)10$ (the degree-minute-second equivalent is also listed); the exact value of $(1000x)^2$ and $(1000x)^3$ for $x=0(.001)1$, and at least 5 significant digits of x^2 and x^3 for $x=1(.001)10$; $\operatorname{erf} x$ for $x=0(.001)2.5(.01)1$ together with some further values for x between 3 and 5; $\Gamma(x)$ for $x=1(.001)2$; $n!$ and n^k for $k=4(1)10$ and $n=0(1)50$, 65; indefinite elliptic integrals of the first and second kinds, $F(\varphi, \theta)$ and $E(\varphi, \theta)$, for $\varphi=0^\circ(1^\circ)90^\circ$, $\theta=5^\circ(5^\circ)90^\circ$ together with the equivalent value of k^2 ($k=\sin \theta$); the complete elliptic integrals $K(\theta)=F(\frac{1}{2}\pi, \theta)$, $E(\theta)=E(\frac{1}{2}\pi, \theta)$ and $\exp(-\pi K(\frac{1}{2}\pi-\theta)/K(\theta))$ for $\theta=0^\circ(20^\circ)90^\circ$; the Bessel functions $J_0(x)$, J_1 , Y_0 , Y_1 , I_0 , I_1 , K_0 , K_1 for $x=0(.01)10$; a table of useful constants (π , e , $\sqrt{2}$, etc.) and a table of decimal equivalents of fractions with denominators up to 20. An insert containing proportional parts for interpolation is included. A list of series and asymptotic expansions of (or related to) the tabulated functions and some directions for use of the tables are also included. As the title indicates, at least 5 significant digits are given. It should prove a useful table for anyone wishing a table of the most common functions.

J. V. Wehausen (Providence, R. I.)

Source: Mathematical Reviews,

Vol 12 No. 7

SEAL, B.1.

U S S R

[Segal, B. I. Spatial problems of potential theory for cylindrical regions. Izv. Akad. Nauk SSSR. Ser. Mat. 16, 59-74 (1952). (Russian) I - F/W

MS
62 Vorgelegt sei als Modell für eine unterirdische Wasserader ein halbunendlicher Kreiszylinder (Zylinderachse ist die z -Achse), in dessen Grundfläche, die als undurchlässig angenommen wird, sich n symmetrisch gelegene Vertiefungen ("Bohrlöcher") befinden, deren Abmessungen gegenüber ihrem Abstand vom Mittelpunkt der Grundfläche klein sind. Die Bestimmung des Geschwindigkeitspotentials u innerhalb des Zylinders führt auf eine potentialtheoretische Randwertaufgabe mit den folgenden Forderungen: Auf dem Zylindermantel ist $u=0$, auf dem nichtangebohrten Teil $\partial u / \partial z = 0$, auf der Oberfläche der Bohrlöcher $u = u_1 = \text{const.}$, $u(\infty) = 0$. Zur Lösung werden in den Mittelpunkten der Bohrlöcher auf der Grundfläche geeignete Senken angebracht, deren Potential mit Hilfe von Reihenentwicklungen nach Besselfunktionen ausdrückbar ist. Beschränkt man sich, was im Hinblick auf die Anwendungen möglich ist, nur auf die Anfangsglieder, so gelingt es, die Lösung des vorgelegten Problems schrittweise aufzubauen. Betrachtet werden speziell Bohrlöcher in Gestalt von Halbkugeln und Zylindern, ferner auch der Fall einer endlichen zylindrischen Wasserader. Die Ergebnisse numerischer Rechnungen finden sich in einigen Tabellen. K. Maruhn (Dresden).

SEGAL, B. I., professor (Moscow)

Mathematics manuals ("Elementary mathematics manual." M. I. A. Vygodskii; "Manual on mathematics for engineers and teachers in schools of higher technical education." I. N. Bronshtein, K. A. Semendiaev. Reviewed by B. I. Segal). Priroda 44 no. 8:123-126 Ag '55. (MLRA 8:10) (Mathematics) (Vygodskii, Mark Iakovlevich) (Bronshtein, I. N.) (Semendiaev, K. A.)

SE 611, B.I.

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Jun-Jul '56, Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.
Segal, B. I. (Moscow). Approximate Solution of the Heat
Conductivity Equation.

Call Nr: AF 1108825

196

Slobodyanskiy, M. G. (Moscow). Approximate Solution of
Linear Boundary Problems and Error Bounds.

197

Shamanskiy, V. Ye. (Kiyev). On the Approximate Solution
of Boundary Problems for Poisson (Laplace) Equations by
the Method Based on the Solutions of Problem on More
Simple Regions in Which the Given Region is Divided.

Yanov, Yu. I. (Moscow). On the Equivalency and Transfor-
mation of Program Charts.

197-198

Section of Mechanics Mathematical Problems

199-216

Card 64/80

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S Z A T, B I

16(1)

PHASE I BOOK EXPLOITATION SOV/2508
Matematicheskoye Proveshcheniye, Matematika. Yeye propodavaniye,
Prilozheniya i istoriya. Vyp. 4. (Mathematical Education,
Mathematics, Its Teaching, Application and History, Nr. 4)
Moscow, Gosstatizdat, 1959. 15,000 copies printed.

Ed.: I.M. Bronshteyn, Editorial Board of Series: I.N. Bronshteyn,
A.I. Markushovich, I.M. Yaglom; Tech. Ed.: S.M. Akhmanov.

PURPOSE: This book is intended for persons without an extensive
mathematical education who are interested in trends in con-
temporary mathematics. The book may be useful to high school
mathematics teachers.

COVERAGE: The book consists of articles, reviews, and scientific
and methodological reports, some of which are translations
from other languages. The state of modern mathematics is covered,
including applications, history, teaching of mathematics in
schools, and mathematical developments in the USSR and abroad.
One section deals with scientific and pedagogical life in
USSR and another contains reviews of certain mathematical publi-
cations. Some mathematical background is necessary to understand
the book; certain articles require a knowledge of higher mathe-
matics.

Mathematical Education; (Cont.)

SOV/2508

III. SCIENTIFIC-METHODOLOGICAL REPORTS
(Teaching Experience and Pedagogical Experimentation)

Aramanovich, I.G., and S.I. Zetel'. On an Approximation of
Graphs of Functions by Curves of the Second Order [Conics] 179

Gradstein, I.S. (Deceased) On One Sufficient Test of Indefinite
Integrals Turning to Zero 189

Segal, B.I. On the Local Limit Theorem in Probability Theory 193

Tekshe, K. (Hungary) Remarks on the Theory of Geometric Construc-
tions 197

Brief Reports:

1. Baik, M.B. Computing a Sum by Weighting 205

2. Ginzburg, B.I. Simplification of Multiplication From Left to Right 207

3. Kuznet', A.V. A Study of the Roots of a Cubic Equation 207

Card 5/8

16(1)

PHASE I BOOK EXPLOITATION SOV/2441

Segal, Bentsion Izrailevich and Konstantin Adol'fovich Sem-
endyayev

Pyatiznachnyye matematicheskiye tablitsy (Five-Place Mathemat-
ical Tables) 2d ed. Moscow, Fizmatgiz, 1959. 463 p. 15,000
copies printed.

Ed.: I. N. Bronshteyn; Tech. Ed.: S. S. Gavrilov.

PURPOSE: This book is intended for scientists, computing per-
sonnel, engineers, laboratory workers, constructors, and designers
performing calculations in various mathematical fields and
concerned with the technical application of mathematics.

COVERAGE: The main part of the book consists of carefully ad-
justed tables of elementary functions (trigonometric, expo-
nential, hyperbolic, reciprocals, squares and cubes).
Also included in the book are certain special functions
(probability integral, gamma function, elliptic integrals,
Bessel functions) and other tables. No personalities are
mentioned. No references are given.

Card 1/3

Five-Place Mathematical Tables

SOV/2441

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10-23-59

Card 3/3

SEGAL, Bentsion Izrailevich; SEMENDYAYEV, Konstantin Adol'fovich;
RIVKIN, A.Z., red.; YERMAKOV, Ye.A., tekhn. red.

[Five-place mathematical tables] Piatiznachnye matematicheskie
tablitsy. Izd.3. Moskva, Fizmatgiz, 1962. 463 p.

(MIRA 15:12)

(Mathematics—Tables, etc.)

LYUKSHIN, V.S., dots., kand. fiz.-matem. nauk; SEGAL, B.I., doktor fiz.-matem. nauk, prof., otv. red.

[Spiral lines and surfaces of a variable (axial) pitch]
Vintovye linii i poverkhnosti peremennogo (aksial'nogo)
shaga. Moskva, Mosk. stankoinstrumental'nyi in-t, 1964.
75 p. ___[Album of drawings] Al'bom chertezhei. 11 p.

[Circular spiral surfaces] Krugovye vintovye poverkhnosti.
Moskva, Mosk. stankostroit. in-t, 1964. 52 p. ___[Album
of drawings] Al'bom chertezhei. 7 p. (MIRA 18:3)

MAMONT, M.S., inzh.; SEGAL, B.M., inzh.; OTCHENASH, Ye.M., inzh.

Readjustable multiple-machining attachments for machining shaped
parts made of stainless steel. Mashinostroenie no.4:27 J1-Ag
'63. (MIRA 17:2)

SEGAL, B.M.

Therapeutic effect of dicaptol in patients with the abstinence
syndrome. Vrach.delo supplement '57:81-82 (MIRA 11:3)

1. Moskovskaya bol'shnaya psikhonevrologicheskaya bol'nitsa.
(ALCOHOLISM) (PROPANOL)

SEGAL, B.M.; KHANLARYAN, G.M.

Treating alcoholism with intravenous sodium thiosulfate injections
[with summary in French]. *Zhur. nevr. i psikh.* 57 no.10:1242-1247
'57. (MIRA 10:12)

1. Moskovskaya oblastnaya psikhonevrologicheskaya bol'nitsa No. 1
(glavnyy vrach - zasluzhennyy vrach RSFSR G.M.Khanlaryan)
(THIOSULFATES, therapeutic use,
sodium, in alcoholism, intravenous admin. (Rus))
(ALCOHOLISM, therapy,
sodium thiosulfate, intravenous admin. (Rus))

SEGAL, B.M.

Interrelation of the syndrome of alcoholic abstinence with
manifestations of dysfunction of the thyroid gland. Vop. psikh.
no. 3:437-445 '59. (MIRA 13:10)
(ALCOHOLISM) (THYROID GLAND--DISEASES)

SEGAL, B.M. (Moskva)

Treatment of delirium tremens with thiol preparations. Vrach.delo
no.6:649-651 Je '59. (MIRA 12:12)

1. Nauchno-issledovatel'skiy institut psikhiiatrii Ministerstva zdra-
vookhraneniya SSSR.
(DELIRIUM TREMENS) (SODIUM THIOSULFATE) (MERCAPTO COMPOUNDS)

SEGAL, B.M.

New method of combined therapy in alcoholism. Zhur.nev. i psikh. 59
no.6:680-684 '59. (MIRA 13:1)

1. Moskovskaya oblastnaya psikhonevrologicheskaya bol'nitsa No.1
(glavnyy vrach - kand.med.nauk A.M. Chirkov).

(APOMORPHINE, ther. use,
alcoholism, with dimercaprol (Rus))

(DIMERCAPROL, ther. use,
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Novocaine treatment in alcoholism. Vop. psikh. no.4:258-265 '60.
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(NOVOCAINE)

SEGAL, B. M., Cand Med Sci --"Alcoholic abstinence syndrome
and desire for alcohol." Mos, 1961. (Minsk State Med Inst)
(KL, 8-61, 264)

- 517 -

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Experimental and clinical data on the testing of ciamide
(calcium carbamide citrate), a new preparation for the
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38:289-294 '63. (MIRA 16:11)

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ISPAS, M.; DUNITRU, L.; SEGAL, E.

Some aspects of the use of methane gas in the reduction
process. Studii cerc metalurgie 8 no.2:179-190 '63

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Kinetics of thermal decomposition of some complex amines. Pt. 2.
Studii cerc chim 11 no.2:175-183 '63.

1. Catedra de chimie fizica a Facultatii de chimie a
Universitatii din Bucuresti.

BARBULESCU, Fl.; POPESCU, I. St.; SEGAL, E.

Electrochemical phenomena in solid hydrated salts. Rev chimie
Roum 9 no.1:33-37 Ja '64

1. Laboratory of Chemistry and Physics, University of Bucharest,
Bulevardul Republicii 13, Bucharest.

BARBULESCU, Florica; IOPESCU, I., St.; SEGAL, E.

Electrochemical phenomena in solid hydrate salts. Studii
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The vapor pressure of the crystalline hydrates of copper sul-
fate. Eugen Sami (Univ. C. I. Parhon Bucharest, Rom-
ania). Ann. chim. Univ. C. I. Parhon, Bucuresti, Ser. Min-
eral. No. 18, 69-78(1968).—A theoretical treatment. The
dissocn. equil. of the crystalline hydrates of CuSO_4 was stud-
ied from the thermodynamic viewpoint and a theoretical
relation obtained from the variation of vapor pressure with
temp., for the pentahydrate. For the dissocn. equil. of
the trihydrate a relation was obtained that did not agree
with the exptl. results of Lescoeur (*Ann. chim. phys.* 21,
511(1890)) and of Randall and Nielsen (*International
Critical Tables*, 1930, vol. VII, p. 262). By use of the
approx. relation of Nernst, relations between the variation
in vapor pressure and temp. were obtained. These agreed
with the exptl. results in the case of the monohydrate and
the pentahydrate. A. Berlin